BROWN, SANDRA. *see* Starr et al., S, 1-10
bryophytes
bryophyte diversity and habitat heterogeneity, Rambo, 270-279
BUCKLEY, RAYMOND M. *see* LeClair and Buckley, 53-60
BULL, EVELYN L., and B.C. WALES. Effects of disturbance on amphibians of conservation concern in eastern Oregon and Washington. S, 174-179
_____., and B.C. WALES. Effects of disturbance on birds of conservation concern in eastern Oregon and Washington. S, 166-173
_____., K.B. AUBRY, and B.C. WALES. Effects of disturbance on forest carnivores of conservation concern in eastern Oregon and Washington. 180-184
_____., T.R. TORGERSEN, and T.L. WERTZ. The importance of vegetation, insects, and neonate ungulates in black bear diet in northeastern Oregon. 244-253
BUNNELL, FRED L. *see* Wahbe and Bunnell, 77-83
_____. *see* Mooney and Bunnell, 327-332
BURGE, HOWARD L. *see* Connor, William P. et al., 254-261
BURY, R. BRUCE, P. LOAFMAN, D. ROFKAR, and K.I. MIKE. NWS Notes: Clutch sizes and nests of tailed frogs from the Olympic Peninsula, Washington. 419-422

California
patterns and abundances along small streams, Waters et al., 37-52
CALLAWAY, RAGAN M. *see* Pipp et al., 12-24
CAREY, ANDREW B. *see* Bayrakçi et al., 333-341
_____. *see* Thysell and Carey, 219-235
_____. *see* Wilson and Carey, 342-349
carnivores
forest carnivores of concern, Bull et al., S, 180-184
Cascade Mountains
fire dating in the Pacific Northwest, Weisberg and Swanson, 145-156
cedar *see* forests
CHANDLER, J.A. *see* Connor, William P. et al., 363-371
climate
blue grouse winter ecology, Pelren and Crawford, 372-377
climatic variability, Ferguson, S, 62-69
COLLINS, D.B., M.C. FELLER, K. KLINKA, and L. de MONTIGNY. Forest floor nutrient properties in single- and mixed-species, second growth stands of western hemlock and western redcedar. 407-416
Columbia River
Hanford Reach cyprinids, Gray and Dauble, 122-136
conifers *see* forests
CONNOR, A.H. *see* Connor, William P. et al., 363-371
CONNOR, WILLIAM P., T.C. BJORNN, H.L. BURGE, A.R. MARSHALL, H.L. BLANKENSHIP, R.K. STEINHORST, and K.F. TIFFAN. Early life history attributes and run composition of PIT-tagged wild subyearling chinook salmon recaptured after migrating downstream past Lower Granite Dam. 254-261
_____., A.P. GARCIA, A.H. CONNOR, E.O. GARTON, P.A. GROVES, and J.A. CHANDLER. Estimating the carrying capacity of the Snake River for fall chinook salmon runs. 363-371
conservation
amphibians of concern, Bull and Wales, S, 174-179
artificially-created snags, Hallett et al., 378-386
bald eagle nesting, Livingston and Hames, 417-418
birds of concern, Bull and Wales, S, 166-173
framework for forest health and productivity, Starr et al., S, 1-10
isolation of cutthroat trout, Kruse et al., 1-11
PIT-tagged wild subyearling chinook salmon, Connor, William P. et al., 254-261
rare plants, Croft, S, 149-156
salmon redd capacity, Connor, William P. et al., 363-371
stand-replacement, fire, salvage logging, and birds, Haggard and Gaines, 387-396
TES insects, LaBonte et al., S, 185-198
TES salmonids and exotic fishes, Howell, S, 157-165
COTTONE, NICHOLAS, and G.J. ETTI. Estimating populations of whitebark pine in Mount Rainier National Park, Washington, using aerial photography. 397-406
CRAWFORD, JOHN A. *see* Pelren and Crawford, 372-377
CROFT, LISA K. Rare plants of eastern Oregon and Washington. S, 149-156
cyprinids *see* fish

DATERMAN, GARY E. *see* Hayes and Daterman, S, 21-30
_____. *see* Quigley et al., S, 234-251
_____. *see* Starr et al., S, 1-10
DAUBLE, Dennis D. *see* Gray and Dauble, 122-136
De MONTIGNY, L. *see* Collins et al., 407-416
DICKSON, LEAL G. *see* Gold et al., 315-326

echinoderms
gonadal enhancement of giant red sea urchins, Mooney and Bunnell, 327-332
ecology
blue grouse winter ecology, Pelren and Crawford, 372-377
chemical indicators of stress, Kelsey, S, 70-76
framework for forest health and productivity, Starr et al., S, 1-10
indigenous knowledge and contemporary sustainability, Ford, 183-188
ponderosa pine seedling recruitment, Keyes et al., 204-210
wildland fire, Ottmar and Sandberg, S, 46-54
economics
economics, Haynes et al., S, 199-207
indigenous knowledge and contemporary sustainability, Ford, 183-188
endangered species
amphibians of concern, Bull and Wales, S, 174-179
birds of concern, Bull and Wales, S, 166-173
PIT-tagged wild subyearling chinook salmon, Connor, William P. et al., 254-261
salmon redd capacity, Connor, William P. et al., 363-371
TES insects, LaBonte et al., S, 185-198
TES salmonids and exotic fishes, Howell, S, 157-165
ENK, TERRENCE A., H.D. PICTON, and J.S. WILLIAMS. Factors limiting a bighorn sheep population in Montana following a dieoff. 280-291
entomology
observations on *Hemileuca hera hera*, Strenge and Zack, 118-121
environmental policy
indigenous knowledge and contemporary sustainability, Ford, 183-188
science, advocacy, and ethics, Hadley, 189-190
science, position advocacy, and ethics: rebuttal, Mills, 191-192
sociocultural factors, Hall and Bigler-Cole, S, 208-233

epidemiology
dwarf mistletoes, rusts, and stem decays, Parks and Flanagan, S, 31-37
root diseases, Thies, S, 38-45
epiphytes
dwarf mistletoes, rusts, and stem decays, Parks and Flanagan, S, 31-37
epiphytic lichens of Douglas-fir forests, Pipp et al., 12-24
harvestable moss biomass, Peck and Muir, 99-106
ERNEST, KRISTINA A., and R.K. FRY. Effects of simulated rodent herbivory on Carey's balsamroot (*Balsamorhiza careyana*): compensatory leaf growth. 236-243
ethics
science, advocacy, and ethics, Hadley, 189-190
science, position advocacy, and ethics: rebuttal, Mills, 191-192
ETTI, GREGORY J. *see* Cottone and Etti, 397-406

FELLER, M.C. *see* Collins et al., 407-416
FERGUSON, SUE A. Climatic variability in eastern Oregon and Washington. S, 62-69
FIGHT, ROGER. *see* Haynes et al., S, 199-207
fires
Bull Run forest fires, Agee and Krusemark, 292-306
conifer ingrowth in shrub-steppe, Turner and Krannitz, 176-182
Douglas-fir forest on Orcas Island, Peterson and Hammer, 262-269
fire dating in the Pacific Northwest, Weisberg and Swanson, 145-156
stand-replacement, fire, salvage logging, and birds, Haggard and Gaines, 387-396
Whatcom Creek fire, Fonda, 25-36
wildland fire, Ottmar and Sandberg, S, 46-54
firs *see* forests
fish
electrophoretic identification of juvenile rockfish, LeClair and Buckley, 53-60
Hanford Reach cyprinids, Gray and Dauble, 122-136
isolation of cutthroat trout, Kruse et al., 1-11
oriental weatherfish in Washington state, Tabor et al., 72-76
PIT-tagged wild subyearling chinook salmon, Connor, William P. et al., 254-261
salmon redd capacity, Connor, William P. et al., 363-371
TES salmonids and exotic fishes, Howell, S, 157-165
vertebrate diversity in small streams, Roper and Scarnecchia, 168-175
FLANAGAN, PAUL T. *see* Parks and Flanagan, S, 31-37
FONDA, R.W. Positive response of red alder, black cottonwood, and bigleaf maple to the Whatcom Creek fire, Bellingham, Washington. 25-36
_____. *see* Risvold and Fonda, 157-167
FORD, JESSE. NWS Forum: The relevance of indigenous knowledge to contemporary sustainability. 183-188
forests
activity areas of long-eared myotis, Waldien and Hayes, 307-314
artificially-created snags, Hallett et al., 378-386
bryophyte diversity and habitat heterogeneity, Rambo, 270-279
Bull Run forest fires, Agee and Krusemark, 292-306
chemical indicators of stress, Kelsey, S, 70-76
conifer ingrowth in shrub-steppe, Turner and Krannitz, 176-182
defoliators, Torgersen, S, 11-20
Douglas-fir forest on Orcas Island, Peterson and Hammer, 262-269
dwarf mistletoes, rusts, and stem decays, Parks and Flanagan, S, 31-37
economics, Haynes et al., S, 199-207
epiphytic lichens of Douglas-fir forests, Pipp et al., 12-24
erosion and riparian zones, Wondzell, S, 128-140
fire dating in the Pacific Northwest, Weisberg and Swanson, 145-156
forest carnivores of concern, Bull et al., S, 180-184
forest floor nutrient properties, Collins et al., 407-416
framework for forest health and productivity, Starr et al., S, 1-10
harvestable moss biomass, Peck and Muir, 99-106
improving forest health and productivity, Quigley et al., S, 234-251
movements of tailed frog tadpoles, Wahbe and Bunnell, 77-83
non-native invasive forest insects, Hayes and Ragenovich, S, 77-84
old-growth forest structure, Youngblood, S, 110-118
ponderosa pine seedling recruitment, Keyes et al., 204-210
Quercus garryana in Washington, Thysell and Carey, 219-235
root diseases, Thies, S, 38-45
small mammals in oak woodlands, Wilson and Carey, 342-349
sociocultural factors, Hall and Bigler-Cole, S, 208-233
stand-replacement, fire, salvage logging, and birds, Haggard and Gaines, 387-396
TES insects, LaBonte et al., S, 185-198
TES salmonids and exotic fishes, Howell, S, 157-165
vegetative patterns, Hernstrom, S, 91-109
Whatcom Creek fire, Fonda, 25-36
whitebark pine in Mount Rainier NP, Cottone and Etti, 397-406
wildland fire, Ottmar and Sandberg, S, 46-54
Yellow-cedar in Prince William Sound, Hennon and Trummer, 61-71
fossils
trionychid turtle from tertiary Chuckanut Formation, Mustoe and Girouard, 211-218
frogs *see* amphibians
FRY, RYANNE K. *see* Ernest and Fry, 236-243

GAINES, WILLIAM L. *see* Haggard and Gaines, 387-396
GALLIE, JILL. *see* Quinn et al., 84-89
GARCIA, A.P. *see* Connor, William P. et al., 363-371
GARTON, E.O. *see* Connor, William P. et al., 363-371
geochemistry
aspect and plant distribution on calcareous soils, Goldin, 197-203
cryptobiotic surface crusts in alpine tundra, Gold et al., 315-326
forest floor nutrient properties, Collins et al., 407-416
geography
aspect and plant distribution on calcareous soils, Goldin, 197-203
cryptobiotic surface crusts in alpine tundra, Gold et al., 315-326
Hanford small mammals, Gitzen et al., 350-362

Quercus garryana in Washington, Thysell and Carey, 219-235
vegetative patterns, Hernstrom, S, 91-109
Yellow-cedar in Prince William Sound, Hennon and Trummer, 61-71
GIROUARD, SAMUEL P., Jr. *see* Mustoe and Girouard, 211-218
GITZEN, ROBERT A., S.D. WEST, and B.E. TRIM. Additional information on the distributions of small mammals at the Hanford Site, Washington. 350-362
GLEW, KATHERINE A. *see* Gold et al., 315-326
GOLD, WARREN G., K.A. GLEW, and L.G. DICKSON. Functional influences of cryptobiotic surface crusts in an alpine tundra basin of the Olympic Mountains, Washington, U.S.A. 315-326
GOLDIN, ALAN. Relationships between aspect and plant distribution on calcareous soils near Missoula, Montana. 197-203
GRAY, ROBERT H., and D.D. DAUBLE. Some life history characteristics of cyprinids in the Hanford Reach, mid-Columbia River. 122-136
GREENE, SARAH E. *see* Keyes et al., 204-210
GROVES, P.A. *see* Connor, William P. et al., 363-371

habitat
artificially-created snags, Hallett et al., 378-386
blue grouse winter ecology, Pelren and Crawford, 372-377
bryophyte diversity and habitat heterogeneity, Rambo, 270-279
conifer ingrowth in shrub-steppe, Turner and Krannitz, 176-182
electrophoretic identification of juvenile rockfish, LeClair and Buckley, 53-60
movements of tailed frog tadpoles, Wahbe and Bunnell, 77-83
small mammals in native bunchgrass, Pearson et al., 107-117
soil, litter, and coarse woody debris, Niwa et al., S, 141-148
stand-replacement, fire, salvage logging, and birds, Haggard and Gaines, 387-396
terrestrial riparian vertebrates and habitat, Wales, S, 119-127
TES salmonids and exotic fishes, Howell, S, 157-165
HADLEY, KEITH S. NWS Forum: Science, advocacy, and ethics: a response to Mills. 189-190
HAGER, STEPHEN. *see* Tabor et al., 72-76
HAGGARD, MARYELLEN, and W.L. GAINES. Effects of stand-replacement fire and salvage logging on a cavity-nesting bird community in eastern Cascades, Washington. 387-396
HALL, TROY, and H. BIGLER-COLE. Sociocultural factors and forest health management. S, 208-233
HALLETT, James G., T. LOPEZ, M.A. O'CONNELL, and M.A. BORYSEWICZ. Decay dynamics and avian use of artificially created snags. 378-386
HAMES, T.R. *see* Livingston and Hames, 417-418
HAMMER, R. DAVID. *see* Peterson and Hammer, 262-269
HARROD, RICHY J. The effect of invasive and noxious plants on land management in eastern Oregon and Washington. S, 85-90
HAYES, JANE L., and G.E. DATERMAN. Bark beetles (Scolytidae) in eastern Oregon and Washington. S, 21-30
_____., and I. RAGENOVICH. Non-native forest insects of eastern Oregon and Washington. S, 77-84
_____. *see* LaBonte et al., S, 185-198
_____. *see* Quigley et al., S, 234-251
_____. *see* Starr et al., S, 1-10
HAYES, JOHN P. *see* Waldien and Hayes, 307-314
HAYNES, RICHARD, R. FIGHT, E. LOWELL, J. STEVENS, and J. BARBOUR. Economic aspects of thinning and harvest for forest health improvement in eastern Oregon and Washington. S, 199-207
HENDERSON, COLIN. *see* Pipp et al., 12-24
HENNON, P.E., and L.M. TRUMMER. Yellow-cedar (*Chamaecyparis nootkatensis*) at the northwest limits of its natural range in Prince William Sound, Alaska. 61-71
herbivores
effects of simulated rodent herbivory on balsamroot, Ernest and Fry, 236-243
herbivory by ungulates, Kie and Lehmkuhl, S, 55-61
shrub community alterations in northern Idaho, Alldredge et al., 137-144
HERNSTROM, MILES A. Vegetative patterns, disturbances, and forest health in eastern Oregon and Washington. S, 91-109
history
Douglas-fir forest on Orcas Island, Peterson and Hammer, 262-269
old-growth forest structure, Youngblood, S, 110-118
trionychid turtle from tertiary Chuckanut Formation, Mustoe and Girouard, 211-218
HOWELL, PHILIP J. Effects of disturbance and management of forest health on fish and fish habitat in eastern Oregon and Washington. S, 157-165
HUBERT, WAYNE A. *see* Kruse et al., 1-11

Idaho
shrub community alterations in northern Idaho, Alldredge et al., 137-144
invertebrates
bark beetles, Hayes and Daterman, S, 21-30
black bear diet, Bull et al., 244-253
defoliators, Torgersen, S, 11-20
gonadal enhancement of giant red sea urchins, Mooney and Bunnell, 327-332
non-native invasive forest insects, Hayes and Ragenovich, S, 77-84
observations on *Hemileuca hera hera*, Strenge and Zack, 118-121
soil, litter, and coarse woody debris, Niwa et al., S, 141-148
TES insects, LaBonte et al., S, 185-198

KELSEY, RICK G. Chemical indicators of stress in trees: their ecological significance and implication for forestry in eastern Oregon and Washington. S, 70-76
KEYES, CHRISTOPHER R., S.A. ACKER, and S.E. GREENE. Overstory and shrub influences on seedling recruitment patterns in an old-growth ponderosa pine stand. 204-210
KIE, JOHN G., and J.F. LEHMKUHL. Herbivory and domestic ungulates in the intermountain west. S, 55-61
KLINKA, K. *see* Collins et al., 407-416
KRANNITZ, PAMELA G. *see* Turner and Krannitz, 176-182

KRUSE, CARTER G., W.A. HUBERT, and F.J. RAHEL. An assessment of headwater isolation as a conservation strategy for cutthroat trout in the Absaroka Mountains of Wyoming. 1-11
KRUSEMARK, FREDERICK. *see* Agee and Krusemark, 292-306

LaBONTE, JAMES R., D.W. SCOTT, J.D. McIVER, and J.L. HAYES. Threatened, endangered, and sensitive insects in eastern Oregon and Washington forests and adjacent lands. S, 185-198
lakes
oriental weatherfish in Washington state, Tabor et al., 72-76
LeCLAIR, LARRY L., and R.M. BUCKLEY. Electrophoretic identification of juvenile rockfish (genus *Sebastes*) recruiting to drifting algae and seagrass habitats off the Washington coast. 53-60
LEHMKUHL, John F. *see* Kie and Lehmkuhl, S, 55-61
lichens
epiphytic lichens of Douglas-fir forests, Pipp et al., 12-24
LIVINGSTON, M.F., and T.R. HAMES. NWS Notes: Successful bald eagle nesting and fledging on Lower Yakima River, Washington. 417-418
LOAFMAN, PATRICK. *see* Bury et al., 419-422
LOPEZ, TOBIAS. *see* Hallett et al., 378-386
LOWELL, EINI. *see* Haynes et al., S, 199-207

McKELVEY, KEVIN S. *see* Pearson et al., 107-117
_____. *see* Waters et al., 37-52
mammals, large
black bear diet, Bull et al., 244-253
factors limiting a bighorn sheep population, Enk et al., 280-291
herbivory by ungulates, Kie and Lehmkuhl, S, 55-61
mammals, small
activity areas of long-eared myotis, Waldien and Hayes, 307-314
forest carnivores of concern, Bull et al., S, 180-184
Hanford small mammals, Gitzen et al., 350-362
patterns and abundances along small streams, Waters et al., 37-52
small mammals in native bunchgrass, Pearson et al., 107-117
small mammals in oak woodlands, Wilson and Carey, 342-349
western gray squirrels in the Puget Trough, Bayrakçi et al., 333-341
marine biology
electrophoretic identification of juvenile rockfish, LeClair and Buckley, 53-60
gonadal enhancement of giant red sea urchins, Mooney and Bunnell, 327-332
MARSHALL, ANNE R. *see* Connor, William P. et al., 254-261
McIVER, JAMES D. *see* LaBonte et al., S, 185-198
methodology
whitebark pine in Mount Rainier NP, Cottone and Etti, 397-406
MIKE, KIM I. *see* Bury et al., 419-422
MILLS, THOMAS J. NWS Forum: Science, position advocacy, and ethics: a rebuttal to Hadley. 191-192
mistletoe
dwarf mistletoes, rusts, and stem decays, Parks and Flanagan, S, 31-37
molecular biology
electrophoretic identification of juvenile rockfish, LeClair and Buckley, 53-60
Montana
aspect and plant distribution on calcareous soils, Goldin, 197-203
factors limiting a bighorn sheep population, Enk et al., 280-291
MOONEY, R.C., and F.L. BUNNELL. NWS Notes: Preliminary studies on the gonadal enhancement of giant red sea urchins taken from barrens in British Columbia. 327-332
mosses
harvestable moss biomass, Peck and Muir, 99-106
moths
observations on *Hemileuca hera hera*, Strenge and Zack, 118-121
Mount Rainier National Park
whitebark pine in Mount Rainier NP, Cottone and Etti, 397-406
mountains
cryptobiotic surface crusts in alpine tundra, Gold et al., 315-326
montane wetlands, Risvold and Fonda, 157-167
MUIR, PATRICIA S. *see* Peck and Muir, 99-106
MUSTOE, GEORGE E., and S.P. GIROUARD, Jr. A fossil trionychid turtle from the early tertiary Chuckanut Formation of northwestern Washington. 211-218

NIWA, CHRISTINE G., R.W. PECK, and T.R. TORGERSEN. Soil, litter, and coarse woody debris habitats for arthropods in eastern Oregon and Washington. S, 141-148
North Cascades
montane wetlands, Risvold and Fonda, 157-167
nutrition
black bear diet, Bull et al., 244-253
NWS Forum
indigenous knowledge and contemporary sustainability, Ford, 183-188
science, advocacy, and ethics, Hadley, 189-190
science, position advocacy, and ethics: rebuttal, Mills, 191-192
NWS Notes
amphibians of the east slope Cascade Mountains, Quinn et al., 84-89
bald eagle nesting, Livingston and Hames, 417-418
gonadal enhancement of giant red sea urchins, Mooney and Bunnell, 327-332
movements of tailed frog tadpoles, Wahbe and Bunnell, 77-83
nests of tailed frogs, Bury et al., 419-422
oriental weatherfish in Washington state, Tabor et al., 72-76

oak *see* forests
O'CONNELL, MARGARET A. *see* Hallett et al., 378-386
Olympic Mountains
cryptobiotic surface crusts in alpine tundra, Gold et al., 315-326

Oregon
activity areas of long-eared myotis, Waldien and Hayes, 307-314
amphibians of concern, Bull and Wales, S, 174-179
aspect and plant distribution on calcareous soils, Goldin, 197-203
birds of concern, Bull and Wales, S, 166-173
black bear diet, Bull et al., 244-253
blue grouse winter ecology, Pelren and Crawford, 372-377
bryophyte diversity and habitat heterogeneity, Rambo, 270-279
Bull Run forest fires, Agee and Krusemark, 292-306
chemical indicators of stress, Kelsey, S, 70-76
climatic variability, Ferguson, S, 62-69
defoliators, Torgersen, S, 11-20
economics, Haynes et al., S, 199-207
erosion and riparian zones, Wondzell, S, 128-140
fire dating in the Pacific Northwest, Weisberg and Swanson, 145-156
forest carnivores of concern, Bull et al., S, 180-184
framework for forest health and productivity, Starr et al., S, 1-10
harvestable moss biomass, Peck and Muir, 99-106
improving forest health and productivity, Quigley et al., S, 234-251
invasive/noxious plants, Harrod, S, 85-90
non-native invasive forest insects, Hayes and Ragenovich, S, 77-84
old-growth forest structure, Youngblood, S, 110-118
rare plants, Croft, S, 149-156
root diseases, Thies, S, 38-45
soil, litter, and coarse woody debris, Niwa et al., S, 141-148
terrestrial riparian vertebrates and habitat, Wales, S, 119-127
TES insects, LaBonte et al., S, 185-198
TES salmonids and exotic fishes, Howell, S, 157-165
vegetative patterns, Hernstrom, S, 91-109
vertebrate diversity in small streams, Roper and Scarnecchia, 168-175
wildland fire, Ottmar and Sandberg, S, 46-54
ORTEGA, YVETTE K. *see* Pearson et al., 107-117
OTTMAR, ROGER D., and D.V. SANDBERG. Wildland fire in eastern Oregon and Washington. S, 46-54

paleontology
trionychid turtle from tertiary Chuckanut Formation, Mustoe and Girouard, 211-218
PARKS, CATHERINE G., and P.T. FLANAGAN. Dwarf mistletoes (*Arceuthobium* spp.), rust diseases, and stem decays in eastern Oregon and Washington. S, 31-37
PEARSON, DEAN E., Y.K. ORTEGA, K.S. McKELVEY, and L.F. RUGGIERO. Small mammal communities and habitat selection in northern Rocky Mountain bunchgrass: implications for exotic plant invasions. 107-117
PECK, JERILYNN E., and P.S. MUIR. Estimating the biomass of harvestable epiphytic moss in central western Oregon. 99-106
PECK, ROBERT W. *see* Niwa et al., S, 141-148
PEEK, JAMES M. *see* Alldredge et al., 137-144
PELREN, ERIC C., and J.A. CRAWFORD. Blue grouse winter movements, habitat, and survival in northeastern Oregon. 372-377
PETERSON, DAVID L. and R.D. HAMMER. From open to closed canopy: a century of change in a Douglas-fir forest, Orcas Island, Washington. 262-269
PICTON, HAROLD D. *see* Enk et al., 280-291
pine *see* forests
PIPP, ANDREA K., C. HENDERSON, and R.M. CALLAWAY. Effects of forest age and forest structure on epiphytic lichen biomass and diversity in a Douglas-fir forest. 12-24

QUIGLEY, THOMAS M., J.L. HAYES, L. STARR, and G.E. DATERMAN. Improving forest health and productivity in eastern Oregon and Washington. S, 234-251
_____. *see* Starr et al., S, 1-10
QUINN, TIMOTHY, J. GALLIE, and D.P. VOLSEN. NWS Notes: Amphibian occurrence in artificial and natural wetlands of the Teanaway and Lower Swauk river drainages of Kittitas County, Washington. 84-89

RAGENOVICH, IRAL. *see* Hayes and Ragenovich, S, 77-84
RAHEL, FRANK J. *see* Kruse et al., 1-11
RAMBO, Thomas R. Decaying logs and habitat heterogeneity: implications for bryophyte diversity in western Oregon forests. 270-279
resource management
conifer ingrowth in shrub-steppe, Turner and Krannitz, 176-182
economics, Haynes et al., S, 199-207
erosion and riparian zones, Wondzell, S, 128-140
framework for forest health and productivity, S, 1-10
improving forest health and productivity, Quigley et al., S, 234-251
indigenous knowledge and contemporary sustainability, Ford, 183-188
invasive/noxious plants, Harrod, S, 85-90
Quercus garryana in Washington, Thysell and Carey, 219-235
sociocultural factors, Hall and Bigler-Cole, S, 208-233
soil, litter, and coarse woody debris, Niwa et al., S, 141-148
terrestrial riparian vertebrates and habitat, Wales, S, 119-127
TES salmonids and exotic fishes, Howell, S, 157-165
vegetative patterns, Hernstrom, S, 91-109
wildland fire, Ottmar and Sandberg, S, 46-54
RISVOLD, A.M., and R.W. FONDA. Community composition and floristic relationships in montane wetlands in the North Cascades, Washington. 157-167
rivers
PIT-tagged wild subyearling chinook salmon, Connor, William P. et al., 254-261
salmon redd capacity, Connor, William P. et al., 363-371
vertebrate diversity in small streams, Roper and Scarnecchia, 168-175
rockfish *see* fish
Rocky Mountains
small mammals in native bunchgrass, Pearson et al., 107-117
rodents
effects of simulated rodent herbivory on balsamroot, Ernest and Fry, 236-243
Hanford small mammals, Gitzen et al., 350-362
western gray squirrels in the Puget Trough, Bayrakçi et al., 333-341

ROFKAR, DEAN. *see* Bury et al., 419-422
ROPER, BRETT B., and D.L. SCARNECCHIA. Patterns of diversity, density, and biomass of ectothermic vertebrates in ten small streams along a North American river continuum. 168-175
RUGGIERO, LEONARD F. *see* Pearson et al., 107-117

SANDBERG, DAVID V. *see* Ottmar and Sandberg, S, 46-54
SCARNECCHIA, DENNIS L. *see* Roper and Scarnecchia, 168-175
SCOTT, DONALD W. *see* LaBonte et al., S, 185-198
silviculture
  bark beetles, Hayes and Daterman, S, 21-30
  dwarf mistletoes, rusts, and stem decays, Parks and Flanagan, S, 31-37
  economics, Haynes et al., S, 199-207
  epiphytic lichens of Douglas-fir forests, Pipp et al., 12-24
  fire dating in the Pacific Northwest, Weisberg and Swanson, 145-156
  old-growth forest structure, Youngblood, S, 110-118
  ponderosa pine seedling recruitment, Keyes et al., 204-210
  root diseases, Thies, S, 38-45
  Yellow-cedar in Prince William Sound, Hennon and Trummer, 61-71
Snake River
  PIT-tagged wild subyearling chinook salmon, Connor, William P. et al., 254-261
  salmon redd capacity, Connor, William P. et al., 363-371
soils
  aspect and plant distribution on calcareous soils, Goldin, 197-203
  erosion and riparian zones, Wondzell, S, 128-140
  forest floor nutrient properties, Collins et al., 407-416
  soil, litter, and coarse woody debris, Niwa et al., S, 141-148
squirrels
  western gray squirrels in the Puget Trough, Bayrakçi et al., 333-341
STARR, LYNN, J.L. HAYES, T.M. QUIGLEY, G.E. DATERMAN, and S. BROWN. A framework for addressing forest health and productivity in eastern Oregon and Washington. S, 1-10
_____. *see* Quigley et al., S, 234-251
STEINHORST, R. KIRK. *see* Connor, William P. et al., 254-261
STEVENS, JIM. *see* Haynes et al., S, 199-207
streams
  erosion and riparian zones, Wondzell, S, 128-140
  isolation of cutthroat trout, Kruse et al., 1-11
  movements of tailed frog tadpoles, Wahbe and Bunnell, 77-83
  nests of tailed frogs, Bury et al., 419-422
  patterns and abundances along small streams, Waters et al., 37-52
  terrestrial riparian vertebrates and habitat, Wales, S, 119-127
  vertebrate diversity in small streams, Roper and Scarnecchia, 168-175
STRENGE, DENNIS L., and R.S. ZACK. Observations on the life history of the sagebrush sheep moth *Hemileuca hera hera* (Lepidoptera: Saturniidae). 118-121
SWANSON, FREDERICK J. *see* Weisberg and Swanson, 145-156

TABOR, Roger A., E. WARNER, and S. HAGER. NWS Notes: An oriental weatherfish (*Misgurnus anguillicaudatus*) population established in Washington state. 72-76
tadpoles *see* amphibians
taxonomy
  montane wetlands, Risvold and Fonda, 157-167
THIES, WALTER G. Root diseases in eastern Oregon and Washington. S, 38-45
THYSELL, DAVID R., and A.B. CAREY. *Quercus garryana* communities in the Puget Trough, Washington. 219-235
TIFFAN, KENNETH F. *see* Connor, William P. et al., 254-261
TORGERSEN, TOROLF R. Defoliators in eastern Oregon and Washington. S, 11-20
_____. *see* Bull et al., 244-253
_____. *see* Niwa et al., S, 141-148
trees *see* forests
TRIM, BRENT E. *see* Gitzen et al., 350-362
trout *see* fish
TRUMMER, L.M. *see* Hennon and Trummer, 61-71
TURNER, JENNIFER S., and P.G. KRANNITZ. Conifer density increases in semi-desert habitats of British Columbia in the absence of fire. 176-182
turtles
  trionychid turtle from tertiary Chuckanut Formation, Mustoe and Girouard, 211-218

ungulates
  herbivory by ungulates, Kie and Lehmkuhl, S, 55-61

vertebrates
  terrestrial riparian vertebrates and habitat, Wales, S, 119-127
  vertebrate diversity in small streams, Roper and Scarnecchia, 168-175
VOLSEN, DAVID P. *see* Quinn et al., 84-89

WAHBE, TANYA R., and F.L. BUNNELL. NWS Notes: Preliminary observations on movements of tailed frog tadpoles (*Ascaphus truei*) in streams through harvested and natural forests. 77-83
WALDIEN, DAVID L. and J.P. HAYES. Activity areas of female long-eared myotis in coniferous forests in western Oregon. 307-314
WALES, BARBARA C. The management of insects, diseases, fire, and grazing implications for terrestrial vertebrates using riparian habitats in eastern Oregon and Washington. S, 119-127
_____. *see* Bull and Wales, S, 166-173
_____. *see* Bull and Wales, S, 174-179
_____. *see* Bull et al., S, 180-184
WALL, WILLIAM A. *see* Alldredge et al., 137-144
WARNER, ERIC. *see* Tabor et al., 72-76
Washington
  amphibians of concern, Bull and Wales, S, 174-179
  amphibians of the east slope Cascade Mountains, Quinn et al., 84-89
  artificially-created snags, Hallett et al., 378-386
  bald eagle nesting, Livingston and Hames, 417-418
  birds of concern, Bull and Wales, S, 166-173
  chemical indicators of stress, Kelsey, S, 70-76
  climatic variability, Ferguson, S, 62-69
  cryptobiotic surface crusts in alpine tundra, Gold et al., 315-326

defoliators, Torgersen, S, 11-20
Douglas-fir forest on Orcas Island, Peterson and Hammer, 262-269
economics, Haynes et al., S, 199-207
electrophoretic identification of juvenile rockfish, LeClair and Buckley, 53-60
erosion and riparian zones, Wondzell, S, 128-140
forest carnivores of concern, Bull et al., S, 180-184
framework for forest health and productivity, Starr et al., S, 1-10
Hanford Reach cyprinids, Gray and Dauble, 122-136
Hanford small mammals, Gitzen et al., 350-362
improving forest health and productivity, Quigley et al., S, 234-251
invasive/noxious plants, Harrod, S, 85-90
montane wetlands, Risvold and Fonda, 157-167
nests of tailed frogs, Bury et al., 419-422
non-native invasive forest insects, Hayes and Ragenovich, S, 77-84
old-growth forest structure, Youngblood, S, 110-118
oriental weatherfish in Washington state, Tabor et al., 72-76
PIT-tagged wild subyearling chinook salmon, Connor, William P. et al., 254-261
Quercus garryana in Washington, Thysell and Carey, 219-235
rare plants, Croft, S, 149-156
root diseases, Thies, S, 38-45
small mammals in oak woodlands, Wilson and Carey, 342-349
soil, litter, and coarse woody debris, Niwa et al., S, 141-148
stand-replacement, fire, salvage logging, and birds, Haggard and Gaines, 387-396
terrestrial riparian vertebrates and habitat, Wales, S, 119-127
TES insects, LaBonte et al., S, 185-198
TES salmonids and exotic fishes, Howell, S, 157-165
trionychid turtle from tertiary Chuckanut Formation, Mustoe and Girouard, 211-218
vegetative patterns, Hernstrom, S, 91-109
western gray squirrels in the Puget Trough, Bayrakçi et al., 333-341
Whatcom Creek fire, Fonda, 25-36
whitebark pine in Mount Rainier NP, Cottone and Etti, 397-406
wildland fire, Ottmar and Sandberg, S, 46-54
WATERS, Jeffrey R., C.J. ZABEL, K.S. McKELVEY, and H.H. WELSH, Jr. Vegetation patterns and abundances of amphibians and small mammals along small streams in a northwestern California watershed. 37-52
weatherfish *see* fish
WEISBERG, PETER J., and F.J. SWANSON. Fire dating from tree rings in western Cascades Douglas-fir forests: an error analysis. 145-156
WELSH, HARTWELL H., Jr. *see* Waters et al., 37-52
WERTZ, TARA L. *see* Bull et al., 244-253
WEST, STEPHEN D. *see* Gitzen et al., 350-362
wetlands
amphibians of the east slope Cascade Mountains, Quinn et al., 84-89
montane wetlands, Risvold and Fonda, 157-167
wildlife management
factors limiting a bighorn sheep population, Enk et al., 280-291
movements of tailed frog tadpoles, Wahbe and Bunnell, 77-83
shrub community alterations in northern Idaho, Alldredge et al., 137-144
WILLIAMS, JAMES S. *see* Enk et al., 280-291
WILSON, SUZANNE M., and A.B. CAREY. Small mammals in oak woodlands in the Puget Trough, Washington. 342-349
WILSON, TODD M. *see* Bayrakçi et al., 333-341
WONDZELL, STEVEN M. The influence of forest health and protection treatments on erosion and stream sedimentation in forested watersheds of eastern Oregon and Washington. S, 128-140
Wyoming
isolation of cutthroat trout, Kruse et al., 1-11

YOUNGBLOOD, ANDREW. Old-growth forest structure in eastern Oregon and Washington. S, 110-118

ZABEL, CYNTHIA J. *see* Waters et al., 37-52
ZACK, RICHARD S. *see* Strenge and Zack, 118-121